

## SOME NEW SPECIES OF SYRPHIDÆ

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This paper presents descriptions of some new species of syrphid flies chiefly from the neotropical regions. All types, except as otherwise stated, are in the author's collection.

**Habromyia rectilinea** n. sp.

Easily recognized by a pair of mesonotal vittæ, sutural fascia and post-sutural spots, all yellow pollinose; abdomen with three pairs of narrowly separated spots and linear fascia. Related to *magnifica* Bigot.

Female. Length 14 mm. Head: eyes bare, the front black, the side margins golden pollinose with yellowish pile. The pile along the greater part of the front is erect, short, and black with some yellow hair intermixed upon the upper third of the front. Pile of the vertex and immediately behind blackish, elsewhere the occipital pile is thick, bushy and golden. The face and cheeks are light, subtranslucent orange. The sides of the face are broadly obscured with pale, shining yellow pubescence over which is sparse, silky, yellow pile. Antennæ orange brown, the first joint black-rimmed apically, the pile of the first two joints black, the arista thick and yellow. *Thorax*: dull black with a prominent widely separated pair of yellow vittæ confluent with a transverse vittæ lying before the base of the scutellum. The median vittæ also confluent, though narrowly, with transverse sutural fascia. In addition, the humeri and a large longitudinal spot before the post calli are of the same yellow. Scutellum dull brownish, the rim shining with a transverse impression before it, the base blackish, the pile black except upon the margin. *Abdomen*: broad, with narrowly interrupted, basal, transverse bands of orange brown. First segment with a complete, though narrow, circle of red-

brown, elsewhere black. Second segment with transverse, somewhat oblique, subbasal, orange spots narrowly separated in the middle. The fascia reaches the lateral margin and extends over it from the anterior corners almost to the posterior corners. Third segment with a less wide but complete transverse fascia indented medially, lying on the base of the margin and reaching the anterior corner. Fourth segment similarly marked as the third and its posterior margins as well diffusely orange. Fifth segment wholly orange brown, except for a small, triangular, basal black spot. Pile of abdomen short, appressed, black on the black area, erect golden on the orange areas, except on the apex of the abdomen where it is quite flat and appressed. *Legs*: pale orange, golden pilose, the hind femora brownish dorsally on all except the basal third; its dorsal pile near the apex and a ventral row of setæ, which reach from base to apex, black. *Wings*: with brown anterior border.

Four females, co-types, from Rio Songo, Ost Bolivia, 800 meters (Fassl). Co-types in the Vienna Museum and the author's collection.

#### *Sphaerophoria guttulata* n. sp.

Fourth segment with widely interrupted basal and apical fascia; the fifth marked with five spots. Related to *robusta* Cur.

Female. Length 5 mm. *Head*: face and cheeks and lower part of front, except a median vittæ, pale yellow. Vertex and a wedge-shaped vittæ to base of antennæ shining black. First two antennal joints pale yellow, with black pile; third light orange, narrowly blackish above. *Thorax*: mesonotum strongly shining brassy, with a pair of narrowly separated, obscurely brownish vittæ. Humeri, all of notopleuræ to suture, almost the whole of mesopleuræ, a large spot on upper half of sternopleuræ, the upper half of pteropleuræ, all of metapleuræ and the whole of the scutellum, except its very narrow corners, pale yellow. *Abdomen*: orange brown, marked with black; first segment black, sides and corners narrowly yellow; second segment black, within its middle a broad, transverse, orange fascia not reaching the sides. Third segment similar, the middle fascia still

wide, occupying perhaps more than half of the segment and reaching the sides somewhat posteriorly on less than half of the width. Fourth segment light orange with a black triangle in each anterior corner and an oval laterally pointed, widely separated, black fascia-like spot on the posterior margin. Fifth segment with a large, oval, basal, median spot and a pair of subapical submarginal, small, transverse spots, black. *Legs*: entirely pale yellow, the posterior tarsi a little darker. *Wings*: hyaline, stigma pale yellow.

Holotype: one female, Black Foot, Idaho, June 17, 1933 (Louise Ireland). In the collection of author, received through the kindness of Dr. James.

#### *Volucella spectralis* n. sp.

Related *tricincta* Bigot through the flattened scutellum, but very different. The apical third of the wing is brown, most of the costal cell and the basal part of stigmal cell yellow.

Female. Length 5 mm. Head: dark brown, the vertex considerably protuberant with black pile at the top, a raised protuberance in the middle of the lower part of the front with a flattened area on either side. The face is flattened on either side of the rounded tubercle, with a small white pubescent rounded spot on each eye margin and a larger one just beneath the antennæ. The cheeks are brown; a yellowish-brown stripe in front. The antennæ are rather short, light brown, the third joint somewhat pointed on the apical half, the pale arista with seventeen rays. *Thorax*: mesonotum brassy black, the humeri and post calli and the pleuræ brown. Mesonotal pile black in the middle, pale elsewhere, with a row of seven long prescutellar black bristles besides other black ones on margins and pleura. Scutellum translucent, brownish-yellow, quite large and inflated, flattened on either side and this flattened area microrugose, margined with three pairs of slender, black bristles; the dorsum has both pale and black pile. *Abdomen*: shining, mahogany-brown, the first segment and two large, narrowly separated spots on the base of the second segment are yellowish. The median vittæ of the second segment continues to bisect the first segment. *Legs*: femora and tibiæ dark

mahogany-reddish brown and black pilose. The tarsi light brownish yellow with black pile. *Wings*: apical third brown, base of the stigmal cell yellow, the costal and first basal cell lighter yellow; anterior cross vein narrowly infuscated, a light cloud of brown on lower part of origin of the third vein.

Holotype: One female. Brazil, without further data.

### *Volucella clara* n. sp.

Similar to *pallens* Wied., the pattern of abdominal spots is different, the face is shorter; the arista with thirteen rays.

Female. Length 6 mm. *Head*: ocellar triangle is dark brown to black; the vertex and front and face and cheeks light, brownish-yellow; the pile is wholly light shining yellow. Facial tubercle is quite low and broadly rounded, densely pilose but the face is almost bare above the tubercle and below the antennæ except for some pale pubescence. The antennæ are orange, the arista pale yellow at base, the rays and the apical portion blackish; with eleven longer rays and three shorter basal ones. *Thorax*: translucent reddish-brown; originally appears to have been light, shining clay-yellow with several shining light reddish-brown vittæ; pile copious, subappressed and long and wholly pale golden; all scutellar and thoracic bristles are light golden. No differentiated bristles before the scutellum; scutellum with three pairs. The lower part of the mesopleura and pteropleuræ and all but the upper ends of the sternopleuræ and metapleura are shining black; metanotum black. *Abdomen*: short, broad, almost round, considerable wider than the thorax and somewhat discolored. The first segment is light translucent brown; the second of the same color but with a conspicuous, black, posterior, marginal fascia from side to side and narrowly connected in the midline with a narrow median vitta of black. The median vittæ narrowly reaches the basal margin of the segment. The pile of the second segment is black on the black areas and light yellow elsewhere. The third segment and the fourth, while discolored, appear to be almost wholly light reddish, shining brown with, on the outer posterior marginal fourth on either side, black fascia that reach the lateral margin and are

somewhat larger upon the third segment. The pile on the black area of the third segment is black but over the entire remainder of the third segment and all of the fourth segment is dense and erect and light yellowish-brown. *Legs*: light, brownish-yellow, pale pilose, except for a distal blackish-brown spot upon the anterior and posterior tibiæ and the blackish terminal joints of the tarsi.

Holotype: one female, Sao Paulo, Y. Piranga, Lange de Moretes, (Brazil). April 8, 1936.

### *Volucella parana* n. sp.

Related to *dimorphia* Cur.; legs dark brown, their bases paler; femoral pile, including apex, black. Marginal and apical scutellar pile black.

Male. Length 6 mm. *Head*: eyes, densely, quite long, dark brown pilose. The vertex is black with long, black pile. Front and face pale yellow, with long, similarly colored pile. The cheeks are shining brown. The antennæ are elongate, light brown, the third joint slightly concave in the middle; arista with thirteen rays. *Thorax*: mesonotum shining, almost black and pale pilose anteriorly and narrowly before the scutellum, but broadly black pilose elsewhere and over the pleuræ and notopleuræ. The scutellum is light, brownish-yellow, translucent and rather large, and inflated and covered on the posterior half with dense, long, black pile. The basal scutellar pile is pale yellow, the marginal bristles black, the ventral fringe black. *Abdomen*: quite translucent, dark brown; middle of the first segment broad, large, the middle basal areas on the second segment and a diagonal, rather small, elongate and irregular spot on the sides of the third segment translucent and pale yellow. The pile of the abdomen is chiefly pale basally in the middle but with black pile all along the lateral and posterior margins of the second segment and broadly over most of the third segment. Most of the pile of the fourth segment is long, quite sparse and pale. *Legs*: dark brown and sub-translucent, the bases of the femora diffusely lighter brown and that of the hind femora diffusely yellowish. All of the tibiæ dark brown and together with the femora, black pilose. There are just a few pale hairs on the base of the hind fe-

mora. First three joints of fore and middle tarsi whitish, of hind tarsi yellow, all with pale pile; the remaining joints are pale brown with dark pile. *Wings*: apical third of wings brown, paler over the posterior margin and in the end of the bulbous and closed submarginal cell. There is a prominent dark brown spot at the end of the subcostal vein, rather broad and continued basalward over the submarginal cell to the origin of this cell and is continued posteriorly over the first basal cell to fill out all of its apical end and to margin the other side of the anterior cross vein.

Holotype: One male, Parana, Brazil. April 20, 1917.